

## Author index

- Alkner, B. *see* Gallagher, P.  
 Amin, A.S., Verkerk, A.O., Bhuiyan, Z.A., Wilde, A.A.M. & Tan, H.L. Novel Brugada syndrome-causing mutation in ion-conducting pore of cardiac Na<sup>+</sup> channel does not affect ion selectivity properties, 291  
 Andersen, J.L. *see* Sandgaard, N.C.F.  
 Ando, Y. *see* Yoshimura, A.  
 Arasan, S. *see* Subramani, S.  
 Arrizurieta, E. *see* De Luca Sarobe, V.  
 Ashton, N. & Szokodi, T. Editor's Choice, 3  
 Astier, C. *see* Vermaelen, M.  
 Aukland, K. Arnold Heller and the lymph pump, 171  
 Baan, J. *see* Bal, M.P.  
 Badawi, J.K., Uccellehan, H., Hatzinger, M., Michel, M.S., Haferkamp, A. & Bross, S. Relaxant effects of  $\beta$ -adrenergic agonists on porcine and human detrusor muscle, 151  
 Bal, M.P., de Vries, W.B., van der Leij, F.R., van Oosterhout, M.F.M., Baan, J., van der Wall, E.E., van Bel, F. & Steendijk, P. Left ventricular pressure–volume relationships during normal growth and development in the adult rat – studies in 8- and 50-week-old male Wistar rats, 181  
 Balakrishnan, S. *see* Subramani, S.  
 Barontini, M. *see* De Luca Sarobe, V.  
 van Bel, F. *see* Bal, M.P.  
 Bentley, L.F. & Lehman, S.L. Doublets and low-frequency fatigue in potentiated human muscle, 51  
 Benyamin, Y. *see* Vermaelen, M.  
 Bhuiyan, Z.A. *see* Amin, A.S.  
 Bie, P., Henriksson, J., Skott, O., Hultborn, H. & van der Vusse, G. Editorial, 1  
 Bie, P. *see* Sandgaard, N.C.F.  
 Bindlev, N. *see* Larsen, R.  
 Blomstrand, E., Moller, K., Secher, N.H. & Nybo, L. Effect of carbohydrate ingestion on brain exchange of amino acids during sustained exercise in human subjects, 203  
 Borge, B.A. *see* Iversen, V.V.  
 Brack, A.S. *see* Bruusgaard, J.C.  
 Bross, S. *see* Badawi, J.K.  
 Bruusgaard, J.C., Brack, A.S., Hughes, S.M. & Gundersen, K. Muscle hypertrophy induced by the Ski protein: cyto-architecture and ultrastructure, 141  
 Carranza, A. *see* De Luca Sarobe, V.  
 Chlubek, D. *see* Safranow, K.  
 Chopard, A. *see* Vermaelen, M.  
 Christoffel, S. *see* Reinsberg, J.  
 Code, L.M. *see* Rush, J.W.E.  
 Creer, A. *see* Gallagher, P.  
 De Luca Sarobe, V., Nowicki, S., Carranza, A., Levin, G., Barontini, M., Arrizurieta, E. & Ibarra, F.R. Low sodium intake induces an increase in renal monoamine oxidase activity in the rat. Involvement of an angiotensin II dependent mechanism, 161  
 Diemunsch, P. *see* Zoll, J.  
 Doolette, D.J., Upton, R.N. & Grant, C. Countercurrent compartmental models describe hind limb skeletal muscle helium kinetics at resting and low blood flows in sheep, 109  
 Doutreleau, S. *see* Zoll, J.  
 Dvoretzky, D.P. *see* Karachentseva, O.V.  
 Favre-Juvin, A. *see* Verges, S.  
 Flore, P. *see* Verges, S.  
 Fraga, S. *see* Soares-da-Silva, P.  
 Fujitsuka, N. *see* Yoshimura, A.  
 Gallagher, P., Trappe, S., Harber, M., Creer, A., Mazzetti, S., Trappe, T., Alkner, B. & Tesch, P. Effects of 84-days of bedrest and resistance training on single muscle fibre myosin heavy chain distribution in human vastus lateralis and soleus muscles, 61  
 Geny, B. *see* Zoll, J.  
 Grant, C. *see* Doolette, D.J.  
 Green, H.J. *see* Rush, J.W.E.  
 Gundersen, K. *see* Bruusgaard, J.C.  
 Gustafsson, L.E. & Lundgren, O. Editor's Choice, 87  
 Haferkamp, A. *see* Badawi, J.K.  
 Hansen, M.B. *see* Larsen, R.  
 Harber, M. *see* Gallagher, P.  
 Harris, B.A. The influence of endurance and resistance exercise on muscle capillarization in the elderly: a review, 89  
 Hatzinger, M. *see* Badawi, J.K.  
 Henriksson, J. & Knol, M. A single bout of exercise is followed by a prolonged decrease in the interstitial glucose concentration in skeletal muscle, 313  
 Henriksson, J. *see* Bie, P.  
 Holstein-Rathlou, N.-H. *see* Sandgaard, N.C.F.  
 Huey, K.A., Hyatt, J.-P.K., Zhong, H. & Roy, R.R. Effects of innervation state on Hsp25 content and phosphorylation in inactive rat plantaris muscles, 219  
 Hughes, S.M. *see* Bruusgaard, J.C.  
 Hultborn, H. *see* Bie, P.  
 Hyatt, J.-P.K. *see* Huey, K.A.  
 Hyypä, S. *see* Kaikkonen, M.  
 Ibarra, F.R. *see* De Luca Sarobe, V.  
 Iemitsu, M., Maeda, S., Miyauchi, T., Matsuda, M. & Tanaka, H. Gene expression profiling of exercise-induced cardiac hypertrophy in rats, 259  
 Iemitsu, M. *see* Maeda, S.  
 Iversen, V.V., Nedrebo, T., Borge, B.A., Salvesen, G.S. & Reed, R.K. Platelet activating factor (PAF) increases plasma protein extravasation and induces lowering of interstitial fluid pressure ( $P_{if}$ ) in rat skin, 5  
 Jakubowska, K. *see* Safranow, K.  
 Jesmin, S. *see* Maeda, S.  
 Jørgensen, F. & Kroese, A.B.A. Ion channel regulation of the dynamical instability of the resting membrane potential in saccular hair cells of the green frog (*Rana esculenta*), 271  
 Jyoti, T. *see* Subramani, S.  
 Kaikkonen, M. & Hyypä, S. Comparison on plasma caesium kinetics in goats and horses with special emphasis on exercising horses, 335  
 Karachentseva, O.V., Yartsev, V.N., Dvoretzky, D.P. & Zhdanova, I.V. Melatonin-evoked potentiation of the juvenile rat tail artery neurogenic reactivity depends on degree of the change in the reactivity, 99  
 Knol, M. *see* Henriksson, J.  
 Kroese, A.B.A. *see* Jørgensen, F.  
 Kumar, A. *see* Reinsberg, J.  
 Larsen, R., Hansen, M.B. & Bindlev, N. Duodenal secretion in humans mediated by the EP4 receptor subtype, 133  
 Laughlin, M.H. & Vornanen, M. Editor's Choice, 257

- Lehman, S.L. *see* Bentley, L.F.  
 van der Leij, F.R. *see* Bal, M.P.  
 Lepers, R. *see* Sarre, G.  
 Levin, G. *see* De Luca Sarobe, V.  
 Lévy, P. *see* Verges, S.  
 Listewnik, M.J. *see* Safranow, K.  
 Lundgren, O. *see* Gustafsson, L.E.
- MacLean, D.A. *see* Rush, J.W.E.  
 Maeda, S., Iemitsu, M., Jesmin, S. & Miyauchi, T.  
 Acute exercise causes an enhancement of tissue  
 renin-angiotensin system in the kidney in rats, 79  
 Maeda, S. *see* Iemitsu, M.  
 Mandros, C. *see* Tzelepis, G.E.  
 Marini, J.-F. *see* Vermaelen, M.  
 Matsuda, M. *see* Iemitsu, M.  
 Mazzetti, S. *see* Gallagher, P.  
 Mazzucotelli, J.P. *see* Zoll, J.  
 Mercier, J. *see* Vermaelen, M.  
 Mettauer, B. *see* Zoll, J.  
 Michel, M.S. *see* Badawi, J.K.  
 Miyauchi, T. *see* Iemitsu, M.  
 Miyauchi, T. *see* Maeda, S.  
 Mogensen, M. & Sahlin, K. Mitochondrial efficiency in rat  
 skeletal muscle: influence of respiration rate, substrate and  
 muscle type, 229  
 Mohammed, A.A. *see* Subramani, S.  
 Møller, K. *see* Blomstrand, E.  
 Murakami, T. *see* Yoshimura, A.
- Nedrebo, T. *see* Iversen, V.V.  
 Nilsson, H. & Sheel, A.W. Editor's Choice, 169  
 Nowicki, S. *see* De Luca Sarobe, V.  
 Nybo, L. *see* Blomstrand, E.
- Olszewska, M. *see* Safranow, K.  
 van Oosterhout, M.F.M. *see* Bal, M.P.
- Pinho, M.J. *see* Soares-da-Silva, P.  
 Piquard, F. *see* Zoll, J.  
 Ponsot, E. *see* Zoll, J.
- Rač, M.E. *see* Safranow, K.  
 Reed, R.K. *see* Iversen, V.V.  
 Reinsberg, J., Christoffel, S., Kumar, A. & van der Ven, H.  
*Escherichia coli* derived factors modulate human granulosa  
 cell steroidogenesis, 303  
 Roussos, C. *see* Tzelepis, G.E.  
 Roy, R.R. *see* Huey, K.A.  
 Rush, J.W.E., Green, H.J., MacLean, D.A. & Code, L.M.  
 Oxidative stress and nitric oxide synthase in skeletal muscles  
 of rats with post-infarction, compensated chronic heart  
 failure, 211  
 Rzeuski, R. *see* Safranow, K.
- Safranow, K., Rzeuski, R., Listewnik, M.J., Jakubowska, K.,  
 Rač, M.E., Olszewska, M. & Chlubek, D. Myocardial and  
 coronary sinus purines as indicators of pig heart energy  
 metabolism during reperfusion after extracorporeal  
 circulation, 13  
 Sahlin, K. *see* Mogensen, M.  
 Salvesen, G.S. *see* Iversen, V.V.  
 Sandgaard, N.C.F., Andersen, J.L., Holstein-Rathlou, N.-H. &  
 Bie, P. Saline-induced natriuresis and renal blood flow  
 in conscious dogs: effects of sodium infusion rate and  
 concentration, 237  
 Sarre, G. & Lepers, R. Neuromuscular function during  
 prolonged pedalling exercise at different cadences, 321
- Sathishkumar, S. *see* Subramani, S.  
 Secher, N.H. *see* Blomstrand, E.  
 Serrão, P. *see* Soares-da-Silva, P.  
 Sheel, A.W. *see* Nilsson, H.  
 Skott, O. *see* Bie, P.  
 Soares-da-Silva, P., Serrão, P., Fraga, S. & Pinho, M.J. Expres-  
 sion and function of LAT1, a neutral amino acid exchanger, in  
 renal porcine epithelial cell line LLC-PK<sub>1</sub>, 71  
 Steendijk, P. *see* Bal, M.P.  
 Subramani, S., Balakrishnan, S., Jyoti, T., Sathishkumar, S.,  
 Mohammed, A.A., Arasan, S. & Vijayanand, C. Force-fre-  
 quency relation in frog-ventricle is dependent on the  
 direction of sodium/calcium exchange in diastole, 193  
 Szokodi, T. *see* Ashton, N.
- Tan, H.L. *see* Amin, A.S.  
 Tanaka, H. *see* Iemitsu, M.  
 Tesch, P. *see* Gallagher, P.  
 Toyoda, Y. *see* Yoshimura, A.  
 Trappe, S. *see* Gallagher, P.  
 Trappe, T. *see* Gallagher, P.  
 Tzelepis, E. *see* Tzelepis, G.E.  
 Tzelepis, G.E., Zakynthinos, S., Mandros, C., Tzelepis, E.  
 & Roussos, C. Respiratory muscle performance with  
 stretch-shortening cycle manoeuvres: maximal inspiratory  
 pressure-flow curves, 251
- Ucclehan, H. *see* Badawi, J.K.  
 Upton, R.N. *see* Doolette, D.J.
- van der Ven, H. *see* Reinsberg, J.  
 Venosa, R.A. Protein kinases A and C stimulate the  
 Na<sup>+</sup> active transport in frog skeletal muscle without an  
 appreciable change in the number of sarcolemmal  
 Na<sup>+</sup> pumps, 329  
 Verges, S., Flore, P., Favre-Juvin, A., Lévy, P. & Wuyam, B.  
 Exhaled nitric oxide during normoxic and hypoxic exercise  
 in endurance athletes, 123  
 Verkerk, A.O. *see* Amin, A.S.  
 Vermaelen, M., Marini, J.-F., Chopard, A., Benyamin, Y.,  
 Mercier, J. & Astier, C. Ubiquitin targeting of rat muscle  
 proteins during short periods of unloading, 33  
 Vijayanand, C. *see* Subramani, S.  
 Vornanen, M. *see* Laughlin, M.H.  
 de Vries, W.B. *see* Bal, M.P.  
 van der Vusse, G. *see* Bie, P.
- van der Wall, E.E. *see* Bal, M.P.  
 Wilde, A.A.M. *see* Amin, A.S.  
 Wuyam, B. *see* Verges, S.
- Yartsev, V.N. *see* Karachentseva, O.V.  
 Yoshimura, A., Toyoda, Y., Murakami, T., Yoshizato, H.,  
 Ando, Y. & Fujitsuka, N. Glycogen depletion in intrafusal  
 fibres in rats during short-duration high intensity treadmill  
 running, 41  
 Yoshizato, H. *see* Yoshimura, A.
- Zakynthinos, S. *see* Tzelepis, G.E.  
 Zhdanova, I.V. *see* Karachentseva, O.V.  
 Zhong, H. *see* Huey, K.A.  
 Zoll, J., Ponsot, E., Doutreleau, S., Mettauer, B., Piquard, F.,  
 Mazzucotelli, J.P., Diemunsch, P. & Geny, B. Acute myo-  
 cardial ischaemia induces specific alterations of ventricular  
 mitochondrial function in experimental pigs, 25

## Subject index

- 4-acetamido-4'-isothiocyano stilbene-2,2'-disulfonic acid, 133  
acetazolamide, 133  
acidosis, 99  
active propulsion, 171  
ageing, 89  
aldosterone, 237  
alkalosis, 99  
amino acid exchanger, 71  
angiotensin converting enzyme, 79  
angiotensin II, 79, 161, 237  
angiotensinogen, 79  
antioxidant enzyme, 211  
arrhythmias, 291  
athletes, 123  
ATPase, 329  
atrophy, 33
- beta-adrenoceptor, 151  
beta-agonist, 151  
biography, 171  
biopsy, 89  
blood, 335  
blood flow, 313  
brain, 203  
Brugada syndrome, 291  
butaprost, 133
- caesium, 335  
calcineurin-inhibitor, 259  
calcium-handling, 193  
capillaries, 89  
cardiac muscle, 193  
cardiac sodium channel, 291  
cardioplegia, 13  
cardiopulmonary bypass, 13  
catecholamines, 151  
conducting pore, 291  
contractility, 181  
creatine kinase, 25  
cycling, 321
- decompression, 109  
denervation, 219  
detraining, 89  
detrusor relaxation, 151  
diphenylamine-2-carboxylate, 133  
dopamine, 161  
dynamic autoregulation, 237
- electrical field stimulation, 99  
electromyogram, 321  
endothelin-1, 259  
endurance, 89, 321  
energetic efficiency, 229  
energy metabolism, 13  
exercise, 123, 203, 313, 335  
exercise training, 259  
exercise-induced hypoxaemia, 123  
extracellular space, 313
- fatty acid, 25  
fatty acid oxidation, 229  
fibre type, 61  
force–frequency relation, 193  
force–velocity, 251  
frog-ventricle, 193
- gas exchange, 123  
gases, 109  
gene mutation, 291  
glucose, 313  
glycogen depletion, 41  
glycogen synthase kinase-3 $\beta$ , 259  
goats, 335
- hair cell, 271  
heart failure, 211  
heart-to-body weight ratio, 181  
heat shock protein 25, 219  
High Performance Liquid Chromatography, 5  
high-performance liquid chromatography, 13  
histology, 89  
history, 171  
horses, 335  
human, 151  
hypoxia, 123
- inactivity, 89, 219  
inflammation, 5  
intrafusal fibres, 41  
*in-vitro*, 303  
ion selectivity, 291  
ischaemia, 25
- LAT1, 71  
left ventricle, 259  
leucine, 71  
LLC-PK<sub>1</sub> cells, 71  
low sodium intake, 161  
low-frequency fatigue, 51  
lymph, 171  
lymphatics, 171
- melatonin, 99  
membrane potential, 271  
microdialysis, 5, 313  
microgravity, 61  
mitochondria, 25, 141, 229  
modified-Ussing chamber, 133  
muscle, 141, 321  
muscle fatigue, 51  
muscle fibre type, 229  
myocardial infarction, 25  
myocardium, 13
- Na<sup>+</sup>/K<sup>+</sup>, 329  
Na(+)-K(+)-exchanging ATPase, 335  
nitric oxide, 123, 211  
noradrenaline, 99

- normalization, 181
- nuclear domains, 141
- oestradiol, 303
- 1-OH prostaglandin E<sub>1</sub>, 133
- optical density, 41
- organ bath, 151
- ovarian function, 303
- oxidative phosphorylation, 229
- oxygen uptake, 321
- oxygen utilization, 229
- pelvic inflammation, 303
- permeability, 5
- pharmacokinetics, 109
- phosphorylation, 219
- pig, 13, 151
- platelet activating factor, 5
- post-exercise recovery, 313
- potassium, 335
- potassium channels, 271
- potentiation, 51
- power, 251
- pressure-flow, 251
- pressure-volume relations, 181
- progesterone, 303
- prostaglandin E<sub>2</sub>, 133
- protein kinases A, 329
- protein kinases C, 329
- proteolysis, 33
- purines, 13
- rat tail artery, 99
- reactive oxygen species, 211
- recruitment, 41
- redistribution of blood flow, 79
- redox signalling, 211
- renal dopamine, 161
- renal monoamine oxidase, 161
- renin activity, 237
- reperfusion, 13
- resistance training, 89
- respiratory muscles, 251
- sacculus, 271
- sarcoplasmic reticulum, 141
- SCN5A, 291
- sickness, 109
- skeletal muscle, 219, 313, 329
- skeletal slow or fast muscles, 33
- ski, 141
- smooth muscle, 151
- sodium current, 291
- sodium excretion, 161
- sodium-calcium exchanger, 193
- spinal cord isolation, 219
- substrate oxidation, 25
- sulprostone, 133
- transit time ultrasound flow probes, 237
- treadmill running, 41
- tryptophan, 203
- ubiquitin, 33
- unloading, 61
- ventricular function, 181
- voltage fluctuation, 271
- weightlessness, 61
- z-disc, 141

